

IN THE CLAIMS

Please amend Claim 6 as follows:

6. (Twice Amended) A method for identification of a candidate molecule involved in lipid regulation comprising:
- (A) identifying a first molecule that binds to, or that inhibits binding of a second molecule to, the nucleic acid sequence of a Zmax1 nucleic acid chosen from among the sequence SEQ ID NO: 1 and a Zmax1 nucleic acid comprising a polymorphism of Table 4, except for the C/A base change at location 21119 (308G), or a HBM nucleic acid having SEQ ID NO: 2;
- (B) measuring the binding of the first molecule, or inhibition of the binding of the second molecule, to the other of either the Zmax1 nucleic acid or the HBM nucleic acid; and,
- (C) comparing the extent of binding of the first molecule, or the extent of inhibition of binding the second molecule, to each nucleic acid sequence, wherein the molecule that binds, or inhibits binding, more or less to the HBM nucleic acid sequence of SEQ ID NO: 2 or the Zmax1 nucleic acid sequence of SEQ ID NO: 1 or a Zmax1 nucleic acid comprising a polymorphism of Table 4, except for the C/A base change at location 21119 (308G), is the candidate molecule.

Please add Claims 48-61 as follows:

48. (New) The method of claim 1, wherein the HBM or Zmax1 is in solution.
49. (New) The method of claim 1, wherein the HBM or Zmax1 is affixed to a solid support.
50. (New) The method of claim 1, wherein the HBM or Zmax1 is located on a cell surface.

51. (New) The method of claim 1, wherein the HBM or Zmax1 is expressed by a host cell.

52. (New) The method of claim 48, wherein the molecule which binds to HBM or Zmax1 is identified by assaying the competitive binding of the molecule to HBM or Zmax1 in the presence of a known ligand.

~~53.~~ (New) A method of identifying a molecule involved in lipid regulation comprising identifying a molecule that binds to, or that inhibits binding of a molecule to, HBM (SEQ ID NO:4).

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54. (New) The method of claim 2, wherein the molecule is identified by co-immunoprecipitation with HBM or Zmax1.

55. (New) The method of claim 2, wherein the molecule is identified by co-fractionation with HBM or Zmax1.

56. (New) The method of claim 2, wherein the molecule is identified by a two-hybrid system in which the extracellular domain of HBM or Zmax1 is encoded on a bait vector.

57. (New) The method of claim 1, wherein the molecule binds to, or inhibits binding of a molecule to, HBM more or less than to Zmax1.

58. (New) The method of claim 1, wherein the step of identifying a molecule that binds to, or that inhibits binding of a molecule to, HBM or Zmax1 is a step of identifying a molecule that binds to, or that inhibits binding of a molecule to HBM.

59. (New) The method of claim 1, wherein the step of identifying a molecule that binds to, or that inhibits binding of a molecule to, HBM or Zmax1 is a step of identifying a molecule that binds to, or that inhibits binding of a molecule to Zmax1.

60. (New) The method of claim 1 wherein the step of identifying a molecule that binds to, or that inhibits binding of a molecule to, HBM or Zmax1 is a step of identifying a molecule that binds to, or that inhibits binding of a molecule to HBM and to Zmax1.

61. (New) The method of claim 1 further comprising the step of determining whether the molecule that binds to, or that inhibits binding of a molecule to, HBM or Zmax1 is a molecule that binds to, or that inhibits binding of a molecule to HBM to a greater or lesser extent than to Zmax1, and wherein the molecule involved in lipid regulation is a molecule that binds to, or that inhibits binding of a molecule to HBM to a greater or lesser extent than to Zmax1.